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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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VENABLE LLP
P.O. BOX 34385
WASHINGTON, DC 20045-9998

EXAMINER	
ANDERSON, JAMES D	
ART UNIT	**PAPER NUMBER**
1614	

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/806,409	PRATT, RAYMOND	
	Examiner	Art Unit	
	James D. Anderson	1614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3 sheets*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Informalities

Claims 1-20 are currently pending and are the subject of this Office Action.

Priority

The present application is a Continuation of U.S. Non-Provisional Application No. 10/321,653, filed December 18, 2002, now abandoned, which is a Continuation of U.S. Non-Provisional Application No. 09/899,028, filed July 6, 2001, now abandoned.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 6-7, 10, 15-16, and 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Henneberg (J. Neural. Transm., 1999).

Henneberg (Title, Discussion) teaches that Aricept®, the hydrochloride salt of the compound of Formula IV, when administered at a dose of 5 mg/day, is effective at treating cognitive dysfunction, including dementia, in PD. Oral administration is an inherent property of Aricept® as evidenced by the Prescribing Information provided by the manufacturer (<http://www.aricept.com/pi/aricept_pi.htm>; accessed online on May 15, 2006).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchinson (U.S. Patent No. 5,965,571; Issued October 12, 1999) in view of Sugimoto *et al.* (U.S. Patent No. 4,895,841; Issued January 3, 1990) and Henneberg (J. Neural. Transm., 1999).

Hutchinson discloses a method of treating PD, including rigidity and dementia, using a cholinesterase inhibitor (see especially Abstract; Column 3, Lines 30-50; and Claims 1-4). The reference further discloses the cholinesterase inhibitors can be administered orally (Column 9, Line 51). Instant Claims 1-20 differ over Hutchinson in requiring the compound of Formula IV or a stereoisomer thereof. Claims 1-14 recite treating dementia of PD. Claims 15-20 recite treating PD in general. Claims 2-5, 7-9, and 16-18 further recite specific salts or stereoisomers of the compound of Formula IV. Claims 1-5, 10-14, and 19-20 further recite dosage amounts and forms of administration.

Sugimoto *et al.* disclose the cyclic amine compounds of the present claims (Cols. 2-12), as well as the specifically claimed compound of Formula IV, its hydrochloride salt, and stereoisomers of the compound of Formula IV. They further disclose that the compound of Formula IV, donepezil, is capable of inhibiting acetylcholinesterase and is

thus effective for the treatment of various kinds of dementia and cerebrovascular diseases (Column 29, Lines 52-65). The patentees further disclose effective dosages of from generally 0.1 to 300 mg and specifically 1 to 100 mg per day (Col. 30, Line 25, compare to, *e.g.*, present Claim 10). The compounds may be orally administered (Column 30, Lines 10-11) and presented in a variety of dosage forms, such as injections, suppositories, sublingual tablets, tablets, and capsules (Col. 30, Lines 27-31).

Henneberg discloses that Aricept®, the hydrochloride salt of the compound of Formula IV, is useful in the treatment of cognitive dysfunction, including dementia, in PD when administered at a dose of 5 mg/day (see especially Title and Discussion). Oral administration is an inherent property of Aricept® as evidenced by the Prescribing Information provided by the manufacturer (<http://www.aricept.com/pi/aricept_pi.htm>; accessed online on May 15, 2006).

In the absence of a showing of unexpected results, it would have been obvious to one of ordinary skill in the art at the time the invention was made that oral administration of the compound of Formula IV (donezepil), its hydrochloride salt, and enantiomers thereof would be useful in treating PD and the dementia associated with PD. The motivation to do so is found in Hutchinson who discloses that cholinesterase inhibitors are useful to treat PD and Sugimoto *et al.* who disclose that the compound of Formula IV, its salts, and enantiomers are cholinesterase inhibitors and are useful in the treatment of dementia and cerebrovascular diseases. Further, Henneberg discloses

that the compound of Formula IV is useful in treating dementia associated with PD in the doses instantly claimed.

Thus, the methods of instant Claims 1-20 would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henneberg (J. Neural. Transm., 1999) in view of Sugimoto *et al.*

Henneberg discloses that Aricept®, the hydrochloride salt of the compound of Formula IV, is useful in the treatment of cognitive dysfunction, including dementia, in PD when administered at a dose of 5 mg/day (see especially Title and Discussion). Oral administration is an inherent property of Aricept® as evidenced by the Prescribing Information provided by the manufacturer (<http://www.aricept.com/pi/aricept_pi.htm>; accessed online on May 15, 2006). Claims 3-4, 8-9, and 17-18 differ over Henneberg in requiring a stereoisomer of the compound of Formula IV. Claims 15-20 recite generically treating PD, which would include dementia. Claims 1-5, 10-14 and 19-20 recite specific dosages and forms of administration.

Sugimoto *et al.* disclose that the compound of Formula IV and its stereoisomers are useful in the methods described therein (see especially Column 12, Lines 30-48 and Column 34, Example 4). Sugimoto *et al.* specifically disclose the cyclic amine compounds of the present claims (Cols. 2-12), as well as the specifically claimed compound of Formula IV, its hydrochloride salt, and stereoisomers of the compound of Formula IV. They further disclose that the compound of Formula IV, donepezil, is

capable of inhibiting acetylcholinesterase and is thus effective for the treatment of various kinds of dementia and cerebrovascular diseases (Column 29, Lines 52-65). The patentees further disclose effective dosages of from generally 0.1 to 300 mg and specifically 1 to 100 mg per day (Col. 30, Line 25, compare to, *e.g.*, present Claim 10). The compounds may be orally administered (Column 30, Lines 10-11) and presented in a variety of dosage forms, such as injections, suppositories, sublingual tablets, tablets, and capsules (Col. 30, Lines 27-31).

In the absence of a showing of unexpected results, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the enantiomers of the compound of Formula IV would be useful in treating PD and dementia associated with PD. The motivation to do so is found in Henneberg who discloses that the compound of Formula IV is useful in treating PD and Sugimoto *et al.* who disclose that the enantiomers of the compound of Formula IV are also useful to treat cognitive disorders, including dementia. In addition, the recited forms of administration are routine and well known in the pharmaceutical art.

Thus, the methods of instant Claims 1-20 would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gregor (U.S. Patent No. 5,486,512) in view of Sugimoto *et al.* and Henneberg (J. Neural. Transm., 1999).

Gregor teaches a method for treating cognitive deficiencies and other dementias (Col. 1, Lines 14-17), which comprises administering to a patient in need thereof from 1 to 100 mg of a pharmaceutically acceptable dosage form, which may be in a form suitable for oral administration, such as a tablet (Col. 35, Lines 13 and 40-46) of a quinazoline derivative which functions as a cholinesterase inhibitor (Abstract and Col. 1, Lines 28-29).

Gregor further indicates that it is because of the compounds ability to inhibit cholinesterase that they are effective for the purposes taught, i.e., "[i]t has now been found that certain quinazoline derivatives also possess cholinesterase inhibitory activity and are thus useful for treating cognitive deficiencies such as Alzheimer's disease, senile dementias...and other conditions where memory and cognitive function improvement or stabilization is desired."

The difference between the above and the claimed subject matter lie in that Gregor fails to highlight the presently claimed therapeutic objective of "treating dementia in a patient with Parkinson's disease" using the specific compound of Formula IV and its salts and enantiomers (Claims 1-14).

Sugimoto *et al.* teach as above. Specifically, the reference discloses the compound of Formula IV, its hydrochloride salt, and stereoisomers of the compound of Formula IV. They further disclose that the compound of Formula IV is a cholinesterase inhibitor.

Henneberg discloses that Aricept®, the hydrochloride salt of the compound of Formula IV, is useful in the treatment of cognitive dysfunction, including dementia, in PD

when administered at a dose of 5 mg/day (see especially Title and Discussion). Oral administration is an inherent property of Aricept® as evidenced by the Prescribing Information provided by the manufacturer (<http://www.aricept.com/pi/aricept_pi.htm>; accessed online on May 15, 2006).

To the skilled artisan, the claimed subject matter would have been *prima facie* obvious over Gregor in view of Sugimoto and Henneberg because as noted above, Gregor teaches that compounds which function as cholinesterase inhibitors may be used to treat dementias or other cognitive impairments in general, *i.e.*, "cognitive deficiencies such as..." and "and other dementias" (Col. 1, Lines 14-17) and Sugimoto teaches that the compounds of Formula IV are cholinesterase inhibitors. Gregor further highlights that such compounds (*i.e.* cholinesterase inhibitors) may be used to treat "other conditions where memory and cognitive function improvement or stabilization is desired" (Col. 1, Lines 31-33). Therefore, one of ordinary skill in the art would have appreciated that the invention of Gregor was not only limited to the specific cognitive deficiencies or dementia disorders explicitly set forth therein, such as Alzheimer's disease (Col. 1, Lines 16-17), but that other such disorders known to the artisan could be treated. This is especially true given the disclosure of Henneberg who teaches that oral administration of the compound of Formula IV can be used to treat dementia associated with PD.

One of ordinary skill in the art would have been motivated to treat dementia in a patient with Parkinson's disease by administering the compound of Formula IV, its salts and enantiomers as recited in the instant claims because this dementia was known to

the artisan at the time the invention was made and it was also known that the instant compounds are inhibitors of cholinesterase. The artisan would have been imbued with at least a reasonable expectation that such compounds could be used in the manner presently claimed given the clear and unequivocal teachings of Gregor in view of Sugimoto *et al.* and Henneberg.

Thus, the methods of instant Claims 1-14 would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James D. Anderson whose telephone number is 571-272-9038. The examiner can normally be reached on MON-FRI 9:00 am - 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel can be reached on 571-272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James D. Anderson
Examiner
Art Unit 1614

JDA
April 27, 2006

Ardin H. Marschel 5/15/06
ARDIN H. MARSCHEL
SUPERVISORY PATENT EXAMINER